

it does not possess the fine reticulations of that species. When the old cable was being hove in many things dropped off, unfortunately, after leaving the water, and before they could be shipped on board, and many more were knocked off by the cheeks of the bow-sheaves; and I saw a most lovely specimen of this cone unfortunately so knocked off, I think about 2 inches longer * than the best of the couple I secured."—*F. W. T.*

We may add that the bulk of the Mollusca obtained at the same time consisted of *Coni* of four or five species, none of them of frequent occurrence. About one hundred *C. planiliratus*, Sowb., hitherto only dredged at two points on the Malabar coast; *C. acutangulus*, Brug., not uncommon; and two species, probably new, were present more rarely. A *Margarella*, sp. n.; two undescribed *Pleurotomæ*; with *Drillia Tayloriana*, Reeve, *Rostellaria curta*, Sow., *Murex malabaricus*, Smith, and *Ficula reticulata*, Lam., also occurred. All were unfortunately more or less injured with the pitch, manganese, and ferruginous oxide of the cable, being indelibly stained. Others, again, were much riddled by worms; but a few remained in fairly good condition, and by their epidermis showed that they had been live shells when they came in contact with the cable.

Two examples of the *Conus clytospira*, as already remarked, occurred, both specimens agreeing save in coloration, one being paler than the other, with ochraceous markings.

It is hoped that shortly they will be placed in our National Collection, South Kensington, and, we may add, it is our intention to have them figured; but this will probably not be until the full account we contemplate writing of all the Molluscan collections of Mr. Townsend formed since 1893 in the Arabian Sea and Persian Gulf is published.

BIBLIOGRAPHICAL NOTICES.

The History of the European Fauna. By R. F. SCHARFF, B.Sc., Ph.D., Keeper of the Natural History Collections, Science and Art Museum, Dublin. Contemp. Sci. Series. London: W. Scott, Ltd., 1899.

DR. SCHARFF'S association with the comprehensive study of our European fauna is so well recognized that the present volume comes as the realization of a desire by his friends and sympathizers that he would give us his views in a more extended and popular form than they have hitherto assumed. This he has now done;

* This specimen would therefore have been 7 inches long.

and since his arguments, contained in papers which form the basis of the work before us, have so recently been under discussion, it is unnecessary here to deal with them in detail. Suffice it to remark that he sets out with a desire to explain the origin of a fauna (that of Ireland in particular) by the careful study of its past and present facies. Discussing the theories of northern and southern migration, and of the migration of the bulk of the original European fauna on land, he upholds the view that the present fauna and flora reached Ireland in a continuous stream from early Tertiary times onwards, and that many of its existing species have probably been there since the Eocene. He argues that little or nothing arrived after the earlier part of the Pleistocene—*i. e.* practically nothing since the Glacial Period.

He incidentally supports the theory of marine origin of the Boulder Clay, and materially so the argument in favour of ice-action in N. Europe being due to floating icebergs at sea, as distinct from land-ice; leading up to the final conclusion that Ireland became separated from England when the migrations from S. to Central Europe were in progress, and that the bulk of the animals which now inhabit England and Ireland are the descendants of ancestors which must have migrated over a land-surface not covered by ice.

The book is admirably got up, not its least attractive feature being the illustrations, which, though few, are in some cases new and highly welcome. Its weakest aspect appears to us the too great reliance on mere negative evidence, notoriously on the supposed scantiness of fossils in the Oligocene deposits, which for Ireland have yet to be adequately explored.

In questions of synonymy, there are some concerning which the author is by no means in agreement with precedent and prevailing custom, and it is a pity he is not more of a paleontologist. The general tone of the book is healthy in the extreme, well worthy its author's association with Haddon, Cunningham, and others, who are doing so much for natural science in the Green Isle. All things considered, the question whether the Irish fauna be glacial, pre- or post-glacial, is but of secondary importance in the production of the book. It is its author's great merit to have opened up a new line of thought on an important problem and worked it out at great pains. That his book will exercise a stimulating influence on Irish investigation is certain; and we could wish it no better outcome than that it might lead to an early exploration of the later and post-tertiary deposits of the area with which it deals, upon the evidence obtainable from which much that is advocated in its pages must stand or fall.

On Buds and Stipules. By the Right Hon. Sir JOHN LUBBOCK, Bart., M.P., F.R.S., D.C.L., LL.D. With Four Coloured Plates and 340 Figures in the Text. (International Scientific Series, vol. lxxxvi.) London: Kegan Paul, Trench, Trübner, & Co., Ltd. 1899. 8vo. Pp. xix, 233.

THIS volume consists of selections from three papers—"On Stipules, their Forms and Functions," and "On Buds and Stipules"—which